



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10 HANFORD PROJECT OFFICE
712 Swift Boulevard, Suite 5
Richland, Washington 99352

0057804

July 19, 2002

Mr. Bryan Foley
U.S. Department of Energy
PO Box 550, A6-38
Richland, WA 99352

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EDMC

Dear Mr. Foley:

The U.S. Environmental Protection Agency (EPA) has reviewed the Ecological 57153
Evaluation of the Hanford 200 Areas- Phase 1: Compilation of Existing 200 Areas Ecological
Data (DOE/RL 2001-54, Draft A). The EPA believes that the report represents a decent attempt
to compile 200 Areas ecological information. We also think that it fulfills the first step of the
ecological risk assessment screening process with the understanding that the upcoming DQO will
complete the screening level. Please see the enclosed comments on the document.

If you have any comments or questions, please call me at 509 376-8665.

Sincerely,

Craig Cameron
200 Area Project Manager

Enclosure

cc: Joel Hebdon, DOE
John Price, Ecology
Administrative Record: 200 Area General

U.S. ENVIRONMENTAL PROTECTION AGENCY COMMENTS ON THE
ECOLOGICAL EVALUATION OF THE HANFORD 200 AREAS - PHASE 1:
COMPILATION OF EXISTING 200 AREAS ECOLOGICAL DATA
(DOE/RL-2001-54, DRAFT A)

July 19, 2002

General Comments

While a disclaimer can be added that pre-1994 conditions do not reflect current ones as closely because of the operating ponds and cribs, the pre-1994 data should be discussed in more detail. This information might also be useful in validating models since both media and biotic contaminant levels had been sampled at various times and could be used to compare with predicted biotic uptake.

Specific Comments

1. *Document title.* Need to revise the title so that it matches the content. It should read, "Ecological Evaluation of the Hanford 200 Areas: Compilation of Existing 200 Areas Ecological Data and Phase 1 of the Screening Level Risk Assessment."
2. *Section 1.0, page 1-1, last paragraph.* Earlier data would be valuable to calibrate bio-uptake values.
3. *Section 1.1, page 1-3, third paragraph, first sentence.* Please delete ", for the first time," and change "addressed" to "address."
4. *Section 1.1, page 1-3, third paragraph, fifth sentence beginning, "No promulgated..."* This is not true; DOE promulgated part of DOE order 5400.
5. *Section 1.2, page 1-4, second paragraph, first sentence.* The transition that is spoken of as happening in the future under the 2012 plan is what is happening right now. This section should probably be revised to update it with Central Plateau change packages and the potential impacts of newly planned site acceleration.
6. *Section 1.2, page 1-4, second paragraph, third sentence.* Please add the Liquid Effluent Treatment Facility to the list of facilities.
7. *Section 1.2, page 1-4, second paragraph, sentence beginning, "Construction of additional..."* This sentence contains a vague reference to the construction of additional facilities in 2002. Please specify which new facilities.
8. *Section 1.2, page 1-4, second paragraph, third to the last sentence.* Since this paragraph is about the Accelerated Closure Plan, this should be 25-35 years, not

“50 or more.”

9. *Section 1.3.1, page 1-5, last paragraph in section.* This paragraph does not accurately reflect the consolidation of RI/FS processes. There are no “representative OUs”!
10. *Section 2.2, page 2-3, third paragraph.* The assessment should not be limited to soil sites but should also include buildings as we will need cleanup levels for them, too.
11. *Section 2.2, page 2-3, second to the last paragraph.* Is there any way to customize the monitoring program to provide more value to the OU RI/FS process?
12. *Section 2.2, page 2-3, last paragraph, first sentence.* Saying that the Implementation Plan was an initial compilation of ecological information is an incredible stretch. It is a summary at best.
13. *Section 2.2, page 2-6, first paragraph on page, last sentence.* When we do a baseline risk assessment depends on many things (including interim/final action, type of action, site knowledge versus stage in the remedial process, etc.). It is way too early to make a statement like the one in this sentence.
14. *Section 2.2.1, page 2-6, last paragraph in section, first sentence.* After the word “protective” add “at the population level.”
15. *Section 2.2.1, page 2-6, last paragraph in section, last sentence.* Add “populations of” before the word “terrestrial.”
16. *Section 2.2.1, page 2-6, last paragraph in section, footnote from section.* This level is less sensitive than the ICRP.
17. *Section 2.2.2.3, page 2-9, third paragraph.* Please give an example of a possible biomarker (i.e. hepatic lesions or T-cells) used in site-specific evaluations.
18. *Section 2.2.2.5, page 2-11, second paragraph.* What percent do shrews eat?
19. *Section 2.2.2.5, page 2-11, third paragraph.* Worms have no hard parts. The hard parts of the arthropods would accumulate contaminants differently.
20. *Section 3.2, page 3-8, third paragraph, third sentence.* As you know, spiders are not insects. Maybe something should be added within the parenthesis or the category in the sentence should be broadened.
21. *Section 3.3.2, page 3-16, third paragraph, last sentence.* Johnson et al. (1994) makes a mockery of an environmental hazard quotient (EQH). According to this

source, an EQH less than or equal to 10 is “low.” EPA considers anything above 1 to be high. This contrast should be mentioned here.

22. *Section 3.3.3.1, page 3-18, last sentence.* Is it logical that having “no increase” means that the source was sealed? Might have been better if it had shown a decrease.
23. *Section 4.1.1, page 4-2, last bullet.* Might not a high-mobility contaminant cause harm to biota if it enters groundwater that then upwells in a seep or makes it to the Columbia River? We think these possibilities need to be contemplated before writing off a contaminant.
24. *Table 4-2, page 4-15.* Many of these contaminants may be above BCGs near processing facilities within the 200 Areas. The sampling data compared in this table is not sufficient to screen COPCs, especially for OU groups that are not covered in this suite of samples.
25. *Table 4-3, pages 4-16 through 4-19.* The shading in the table is too subtle.
26. *Table 4-3, page 4-18.* Are you indicating that you did not analyze for specific PCBs?
27. *Table 4-3, page 4-19, footnotes.* Where are the 200-TW-1 and 200-MW-1 references to match the text? Wasn’t there sampling and analysis from these units that was included in the data set this table is based on?
28. *Section 4.2, page 4-19, last paragraph on page.* Why couldn’t you include the COPECs that were different from WAC but are from the OU characterization that has been done so far?
29. *Section 4.2, page 4-20, third paragraph, last two sentences.* Vehicle decontamination pits and facilities would certainly have these contaminants as COPCs.
30. *Section 4.2, page 4-20, last paragraph.* You cannot exclude COPCs based on such limited data. We must at least have the ability to add them when encountered on an OU- or site-specific basis.
31. *Section 5.0, page 5-1, last paragraph.* You should coordinate your efforts with the CDI project as ecological risk is factored into their risk assessment efforts towards a final record of decision for U-Plant and ancillary facilities. These activities are also being performed presently.
32. *Table A-1, page A-1 ...* This table isn’t extremely useful.